UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,930	03/05/2002	Terrance M. Sharp	BAE 3036	5272

30868 7590 11/09/2004

KRAMER & AMADO, P.C.
2001 JEFFERSON DAVIS HWY
SUITE 1101
ARLINGTON, VA 22202

EXAMINER	
GOFF II, JOHN L	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/087,930	SHARP, TERRANCE M.	
	Examiner	Art Unit	
	John L. Goff	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 March 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed on 9/7/04.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 22-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 22-24 require the nose of the tape applicator head to comprise a "stationary radius". It is unclear where in the specification the tape applicator head nose is described as having a "stationary radius". The specification describes the tape applicator head nose as "free to move reciprocally up and down" such that clearly the tape applicator head nose is not stationary (Page 8, lines 11-13). It appears applicant has used the phrase to distinguish the tape applicator head nose shown in the Figures from the prior art tape applicator head having a rotary (cylindrical) nose (Page 10, first paragraph of applicants arguments). Thus, in view of this and in order to overcome the rejection it is suggested applicant delete "comprises a stationary radius"

and insert therein - - is non-rotary - - wherein support for non-rotary is found in the Figures. If applicant amends the claims in this manner the specification should be amended accordingly.

5. Claims 22-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As noted above, claims 22-24 require the nose of the tape applicator head to comprise a "stationary radius". However, it is unclear what is required by the phrase as the specification describes the tape applicator head nose as "free to move reciprocally up and down" such that clearly the tape applicator head nose is not stationary (Page 8, lines 11-13). It appears applicant has used the phrase to distinguish the tape applicator head nose shown in the Figures from the prior art tape applicator head having a rotary nose (Page 10, first paragraph of applicants arguments). Thus, the claims have been interpreted to require an applicator head nose that is non-rotary.

Claim Rejections - 35 USC § 102

6. Claims 5, 6, 8, 9, 15, 20, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Ermert et al. (Publication from *Plastics Engineering* titled "R U Reinforcing plastics with robots?").

Ermert et al. disclose a robot system capable of applying adhesive tape to a workpiece (See page 3, the heading "Tape-laying", lines 1-14 and 23-31). Ermert et al. teach the **robot system comprises a computer**, i.e. the claimed computer means (See page 2, the heading "Figure 1", line 1), **a robotic arm** under the control of the computer having **a tape applicator head attachment**, i.e. the claimed tape applicator means (See page 3, the heading "Figure 4",

line 1 and the "Tape laying tool" within Figure 4), and **a liquid applicator attachment**, i.e. the claimed activator applicator means capable of applying an activator liquid along a predetermined path prior to application of the tape (See page 1, the heading "Fiber sprayup", lines 1-3 and the "Fiber spraying tool" within Figure 2 on page 2), and **a work table**, i.e. means to hold a work piece in registration with the tape applicator means (See page 2, the heading "Figure 1", line 1 and the "Parts mounting table" within Figure 1). Ermert et al. teach the **computer includes programmed data** for operating the robotic arm and tape applicator head attachment, i.e. the claimed computer means which includes programmed data respecting the shape of the work piece and the proposed path of the tape to be adhered to the work piece and a computer adapted to control a robotic arm according to a program (See page 4, the heading "Programming and tool changing", lines 1-11 and page 6, glossary definitions for Control, Servos, and Programming method). Ermert et al. teach the robotic arm **tape applicator head attachment comprises** a **roller**, i.e. the claimed roller capable of releasably storing two-sided adhesive tape it being noted the roller disclosed by Ermert et al. is the same as the roller described by applicants specification (See page 4, the heading "Figure 5", lines 1-3 and the "Tape feed roll" within Figure 5), a **guide means**, i.e. the claimed guide means to guide the tape to a tape applicator head (See Figure 5 and the deflection rolls (not labeled) between the "Tape feed roll" and "Tension rolls"), a **tensioning means**, i.e. the claimed tensioning means located between the roller and tape applicator nose capable of maintaining a uniform tension (See the "Tension rolls" within Figure 5), a **pneumatically press driven tape applicator nose** having a smooth radius the center point of which lies along a roll axis of the robotic arm, i.e. the claimed tape applicator nose capable of permitting reciprocal motion in a direction normal to the workpiece and a pneumatic piston

capable of applying pressure to the tape applicator nose (See page 3, the heading "Tape-laying", lines 28-30 and page 4, the heading "Figure 5", lines 1-3 and the "Pressure laydown roll" and "Roll-carrier movement" within Figure 5), and a **cutting means**, i.e. the claimed cutting means integral with the tape applicator head capable of cutting the tape under the control of the computer (See page 4, the heading "Figure 6", lines 1-4 and the "Cutting" within Figure 5).

Regarding claims 6, 8, 9, and 15, while the term "adapted" may be used to require further structural limitations, the term as used in the current claims does not require any further structural limitations other than what is already disclosed by Ermert et al. **The term as currently used merely states intended use.** For example, claim 6 requires activator applicator means "adapted to apply an activator liquid along the predetermined path prior to application of the tape". This use of the term "adapted" does not require any further structural limitation of the activator application means disclosed by Ermert et al. Rather, it merely requires the liquid applicator attachment taught by Ermert et al. to be **capable** of applying an activator liquid along the predetermined path prior to application of the tape, a function the liquid applicator attachment taught by Ermert et al. is clearly capable of performing.

Regarding claim 15, the apparatus claims do not specifically require an adhesive tape such that the limitation is merely intended use. The claims only require the apparatus taught by Ermert et al. be capable of applying an adhesive tape. In any event, Ermert et al. clearly teach using the apparatus to apply adhesive tape, e.g. pre-impregnated tapes (See page 3, the heading "Tape-laying", lines 1-14 and 23-31).

Claim Rejections - 35 USC § 103

7. Claims 7, 10, 11, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ermert et al. as applied in paragraph 6 above, and further in view of Frank (U.S. Patent 4,382,836).

Regarding claims 7 and 11, Ermert et al. as applied above teach all of the limitations in claims 7 and 11 except for a specific teaching of the tape applicator head attachment including tape braking means, i.e. the claimed braking means capable of holding the tape stationary during cutting. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the tape applicator taught by Ermert et al. a tape braking means such as the one shown for example by Frank as it was well known in the art to include a tape breaking means on a tape applicator head for securing the tape after it is cut and thereafter providing the cut end of the tape to the tape applicator head nose.

Regarding claim 10, Ermert et al. as applied above teach all of the limitations in claim 10 except for a specific teaching of the tensioning means including nip rolls. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the tensioning means taught by Ermert et al. nip rolls such as those shown for example by Frank as it was well known in the art to use nip rolls as the tensioning means on a tape applicator head wherein only the expected results would be achieved.

Regarding claims 16-18, Ermert et al. as applied above teach all of the limitations in claims 16-18 except for a specific teaching of the tape applicator head including a pneumatic knife cutter located within the perimeter of the tape applicator head when not in operation. It would have been obvious to one of ordinary skill in the art at the time the invention was made to

use as the pneumatic knife cutting means taught by Ermert et al. one that is located within the perimeter of the tape applicator head as it was well known and conventional in the art to include the pneumatic knife cutter in this position as shown for example by Frank wherein only the expected results would be achieved, the use of a sensor being intrinsic to Ermert et al. as modified by Frank as it would not be possible to automatically feed tape while applying the tape braking means and actuating the pneumatic knife cutter.

Frank discloses a tape applicator head that may be carried by any stationary support structure (Column 5, lines 8-26). Frank teaches the **tape applicator head comprises** a **roller**, i.e. the claimed roller capable of releasably storing two-sided adhesive tape it being noted the roller disclosed by Frank is the same as the roller described by applicants specification (See Column 5, lines 31-35 and 20 of Figure 1), a **guide means**, i.e. the claimed guide means to guide the tape to a tape applicator head (See Column 5, lines 31-35 and 18 of Figure 1), a **nip roll tensioning means**, i.e. the claimed tensioning means located between the roller and tape applicator nose capable of maintaining a uniform tension (See Column 6, lines 16-19 and 64 and 66 of Figure 1), a **pneumatically press driven tape applicator nose** having a smooth radius the center point of which lies along a roll axis of the tape applicator, i.e. the claimed tape applicator nose capable of permitting reciprocal motion in a direction normal to the workpiece and a pneumatic piston capable of applying pressure to the tape applicator nose (See Column 5, lines 39-41 and 24 and 84 of Figure 1), a **tape breaking means** controlled by an actuator, i.e. the claimed tape braking means capable of holding the tape stationary during cutting (See Column 6, lines 30-38 and 74, 76, and 78 of Figures 1 and 2), and a **knife cutting means** that is fully retractable, controlled by an actuator, and located within the perimeter of the tape applicator, i.e.

the claimed cutting means integral with the tape applicator head capable of cutting the tape (See Column 6, lines 58-68 and Column 7, lines 1-2 and Column 8, lines 48-68 and Column 9, lines 1-2 and 98 and 100 of Figure 1).

Regarding claims 7 and 11, see paragraph 6 regarding the use of the term "adapted".

8. Claims 5-11, 15-18, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank in view of Ermert et al. or alternatively over Ermert et al. in view of Frank.

Frank is described above in paragraph 6. Frank is silent as to using the tape applicator head as part of a computer controlled robotic arm system. However, the tape applicator head taught by Frank is designed to be mounted on any movable support such that it would have been obvious to one of ordinary skill in the art at the time the invention was made to mount the tape applicator taught by Frank on any well known and conventional movable support for a tape applicator such as that shown for example by Ermert et al. (Ermert et al. is described above in full detail in paragraph 6) wherein the system taught by Ermert et al. provides benefits such as automatic control of the tape applicator. Alternatively, Ermert et al. is not limited to any particular tape applicator (the tape applicator taught by Ermert et al. being part of a much larger system of interchangeable applicators) such that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use in the system taught by Ermert et al. the tape applicator taught by Frank for benefits such as the tape applicator would include tape braking means, a cutter located within the perimeter of the tape applicator, etc.

Regarding claims 6-9, 11, and 15, see paragraph 6 regarding the use of the term "adapted".

9. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ermert et al. and Frank as applied in either one of paragraphs 7 or 8 above, and further in view of Roettger et al. (U.S. Patent 4,885,981).

Ermert et al. and Frank as applied above teach all of the limitations in claims 12 and 13 except for a specific teaching of the type of actuator used to operate the tape breaking means, it being noted Ermert et al. and Frank do not suggest or require any particular type of actuator. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any well known and conventional actuator to operate the tape breaking means taught by Ermert et al. as modified by Frank (or Frank as modified by Ermert et al.) such as a pneumatic spring return actuator as shown for example by Roettger et al. wherein the pneumatic spring actuator has advantages such as being designed to fail in either a closed or open position.

Roettger et al. disclose conventional pneumatic spring return actuators wherein the actuators have the particular benefit of being designed to fail in either a closed or open position (Figures 1 and 2 and Column 1, lines 6-29 and Column 2, lines 57-61).

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ermert et al. as applied in paragraph 6 above or Ermert et al. and Frank as applied above in either one of paragraphs 7 or 8, and further in view of Manusch et al. (U.S. Patent 5,462,633).

Ermert et al. is discussed in full detail in paragraph 6 above.

Ermert et al. as applied above teach all of the limitations in claim 14 except for a specific teaching of including on the nose of the tape applicator head projections less than the thickness of the tape. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include on the nose of the tape applicator head taught by Ermert et al.

projections having a thickness less than the thickness of the tape being applied as it was well known in the art to include projections on the nose of a tape applicator head to ensure the tape is applied up to a maximum pressure thus preventing tears or bumps in the applied tape as shown for example by Manusch et al.

Ermert et al. and Frank are applied for the same reasons as presented in paragraphs 7 and 8.

Ermert et al. and Frank as applied above teach all of the limitations in claim 14 except for a specific teaching of including on the nose of the tape applicator projections less than the thickness of the tape. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include on the nose of the tape applicator taught by Ermert et al. as modified by Frank (or Frank as modified by Ermert et al.) projections having a thickness less than the thickness of the tape being applied as it was well known in the art to include projections on the nose of a tape applicator head to ensure the tape is applied up to a maximum pressure thus preventing tears or bumps in the applied tape as shown for example by Manusch et al.

Manusch et al. disclose a tape applicator head including on the nose of the applicator projections having a thickness less than the thickness of the tape being applied to ensure the tape is applied up to a maximum pressure thus preventing tears or bumps in the applied tape (Figure 2 and Column 1, lines 38-44 and 66-67 and Column 2, lines 1-17 and 28-37).

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ermert et al. as applied in paragraph 6 above or Ermert et al. and Frank as applied above in either one of paragraphs 7 or 8, and further in view of Jensen et al. (U.S. Patent 6,537,406).

Ermert et al. is discussed in full detail in paragraph 6 above.

Ermert et al. as applied above teach all of the limitations in claim 19 except for a specific teaching of including vacuum ports on the tape applicator. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include adjacent the nose of the tape applicator taught by Ermert et al. vacuum ports as it was well known in the art to include vacuum ports adjacent the nose of a tape applicator to ensure the tape is applied wrinkle free as shown for example by Jensen et al.

Ermert et al. and Frank are applied for the same reasons as presented in paragraphs 7 and 8.

Ermert et al. and Frank as applied above teach all of the limitations in claim 19 except for a specific teaching of including vacuum ports on the tape applicator. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include adjacent the nose of the tape applicator taught by Ermert et al. as modified by Frank (or Frank as modified by Ermert et al.) vacuum ports as it was well known in the art to include vacuum ports adjacent the nose of a tape applicator to ensure the tape is applied wrinkle free as shown for example by Jensen et al.

Jensen et al. disclose a tape applicator head including a nose having adjacent vacuum ports wherein the vacuum ports ensure the tape is applied wrinkle free (Figure 5 and Column 7, lines 40-49).

12. Claims 16-18, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ermert et al. as applied in paragraph 6 above, and further in view of Murray et al. (GB 2101519).

Regarding claims 16-18, Ermert et al. as applied above teach all of the limitations in claims 16-18 except for a specific teaching of the tape applicator head including a pneumatic

knife cutter located within the perimeter of the tape applicator head when not in operation. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the pneumatic knife cutting means taught by Ermert et al. one that is located within the perimeter of the tape applicator head as it was well known and conventional in the art to include the pneumatic knife cutter in this position as shown for example by Murray et al. wherein only the expected results would be achieved, the use of a sensor being intrinsic to Ermert et al. as modified by Murray et al. as it would not be possible to automatically feed tape while applying the tape braking means and actuating the pneumatic knife cutter.

Regarding claims 22 and 23, Ermert et al. as applied above teach all of the limitations in claims 22 and 23 except for a specific teaching of using a non-rotary tape applicator nose. It would have been well within the purview of one of ordinary skill in the art at the time the invention was made to use as the tape applicator nose taught by Ermert et al. a non-rotary nose as both rotary and non-rotary nose were well known in the art as shown for example by Murray et al. wherein only the expected results would be achieved.

Murray et al. disclose a tape applicator head that may be computer controlled and carried by a stationary support structure. Murray et al. teach the **tape applicator head comprises** a **roller**, i.e. the claimed roller capable of releasably storing two-sided adhesive tape it being noted the roller disclosed by Murray et al. is the same as the roller described by applicants specification (See Page 6, lines 1-5 and 414 of Figure 4), a **guide means**, i.e. the claimed guide means to guide the tape to a tape applicator head (See Page 6, lines 46-50 and 467 of Figure 1), a **tensioning means**, i.e. the claimed tensioning means located between the roller and tape applicator nose capable of maintaining a uniform tension (See Page 9, lines 30-37 and 453 and

457 of Figure 4), a **pneumatically press driven non-rotary tape applicator nose** having a smooth radius the center point of which lies along a roll axis of the tape applicator, i.e. the claimed tape applicator nose capable of permitting reciprocal motion in a direction normal to the workpiece and a pneumatic piston capable of applying pressure to the tape applicator nose (See Page 5, lines 104-108 and Page 6, lines 75-79 and 447 and 448 of Figure 6 and 462 of Figure 4), and a **cutting means** that is fully retractable, controlled by an actuator, and located within the perimeter of the tape applicator, i.e. the claimed cutting means integral with the tape applicator head capable of cutting the tape (See Page 6, lines 96-106 and Page 7, lines 100-103 and 478 of Figure 7).

13. Claims 5, 6, 8, 9, 15-18, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murray et al. in view of Ermert et al. or alternatively over Ermert et al. in view of Murray et al.

Murray et al. is described above in paragraph 12. Murray et al. are silent as to using the tape applicator head as part of a computer controlled robotic arm system. However, the tape applicator head taught by Murray et al. is designed to be computer controlled and mounted on any movable support such that it would have been obvious to one of ordinary skill in the art at the time the invention was made to mount the tape applicator taught by Murray et al. on any well known and conventional movable support for a tape applicator such as that shown for example by Ermert et al. (Ermert et al. is described above in full detail in paragraph 6) wherein the system taught by Ermert et al. provides benefits such as automatic control of the tape applicator. Alternatively, Ermert et al. is not limited to any particular tape applicator (the tape applicator taught by Ermert et al. being part of a much larger system of interchangeable applicators) such

that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use in the system taught by Ermert et al. the tape applicator taught by Murray et al. for benefits such as the tape applicator would include a cutter located within the perimeter of the tape applicator, etc.

Regarding claims 6, 8, 9, and 15, see paragraph 6 regarding the use of the term "adapted".

14. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ermert et al. and Murray et al. as applied above in either one of paragraphs 12 or 13, and further in view of Manusch et al.

Ermert et al. and Murray et al. are applied for the same reasons as presented in paragraphs 12 and 13.

Ermert et al. and Murray et al. as applied above teach all of the limitations in claim 14 except for a specific teaching of including on the nose of the tape applicator projections less than the thickness of the tape. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include on the nose of the tape applicator taught by Ermert et al. as modified by Murray et al. (or Murray et al. as modified by Ermert et al.) projections having a thickness less than the thickness of the tape being applied as it was well known in the art to include projections on the nose of a tape applicator head to ensure the tape is applied up to a maximum pressure thus preventing tears or bumps in the applied tape as shown for example by Manusch et al. Manusch et al. is described above in paragraph 10 in full detail.

15. Claims 19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ermert et al. and Murray et al. as applied above in either one of paragraphs 12 or 13, and further in view of Jensen et al.

Ermert et al. and Murray et al. are applied for the same reasons as presented in paragraphs 12 and 13.

Ermert et al. and Murray et al. as applied above teach all of the limitations in claims 19 and 24 except for a specific teaching of including vacuum ports on the tape applicator. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include adjacent the nose of the tape applicator taught by Ermert et al. as modified by Murray et al. (or Murray et al. as modified by Ermert et al.) vacuum ports as it was well known in the art to include vacuum ports adjacent the nose of a tape applicator to ensure the tape is applied wrinkle free as shown for example by Jensen et al. Jensen et al. is described above in paragraph 11 in full detail.

Response to Arguments

16. Applicant's arguments with respect to claims 5-24 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues the programmed data required by amended claim 5 is not disclosed in Ermert et al. Applicant further argues Ermert et al. do not disclose the "adapted" function required by claim 6 (and the other claims where "adapted" is used). Applicant further argues the Examiner has not disclosed where each and every claimed limitation can be found within Ermert et al. All of these arguments are addressed above in the rejection in paragraph 6. Applicant further argues the Examiner has not disclosed where each

and every claimed limitation can be found within Frank. This argument is addressed above in the rejection in paragraph 7.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John L. Goff

JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300